

IMPORTANT:

According to the U.S. Army Corps of Engineers, large scale demolition of more than 30,000 homes that were destroyed is about to begin in Orleans and St. Bernard parishes. That waste will have to be disposed of properly. **Here are some numbers that will give an idea of the magnitude of the cleanup efforts:**

CONSTRUCTION AND DEMOLITION DEBRIS:

More than 20 million tons disposed of; 10 million tons remaining

WHITE GOODS RECYCLED (Refrigerators, Stoves, Washers, A/C Units, etc.) :

846,150 units and More than 50,000 lbs. of freon recycled (enough to keep 420,000 cars cool in the summer months.)

HOUSEHOLD HAZARDOUS WASTE (Pesticides, Bleach, Paint Solvents, etc.) :

More than 10,000 tons properly disposed of

ELECTRONIC GOODS RECYCLED:

602,711 units

ORPHANED CONTAINERS (Propane Tanks, Hazardous Containers, Drums, etc.) :

More than 4 million units recovered

GUNS AND OTHER AMMUNITION-RELATED ITEMS:

5,000 items; 63,000 lbs. of Ammunition, Flares and Smokeless Powder

The amount of time it will take to clean up the city depends on the number of available landfills, their proximity to the impact area and other conditions such as the weather.

INFORMATION PACKETS

Hundreds of thousands of informational packets were distributed throughout the 20 parishes. The flyers contained information such as a toll free number to call for hazardous waste pickup, questions and answers about asbestos, and what measures to take when you return home in dealing with mold and cleanup of household hazardous waste.

*Above figures are derived from DEQ, EPA and US Army Corps of Engineers Progress Reports

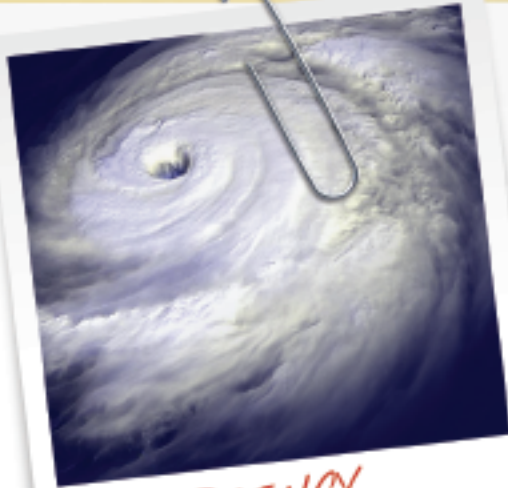
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This briefing is sponsored by the **LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY** and is intended to clarify information on the environment in New Orleans after Hurricane Katrina. Scientists from state and federal agencies will discuss health-related issues, environmental sampling and their findings, recycling efforts and debris removal in the area impacted by Katrina.



***EMERGENCY
RESPONSE**

“A BACKGROUND ON THE KATRINA RECOVERY”

HURRICANE KATRINA made landfall on August 29, 2005 and two days later the U.S. Environmental Protection Agency, the Louisiana Department of Environmental Quality, the U.S. Coast Guard and other agencies formed a Unified Command at the DEQ headquarters in Baton Rouge. The agencies had

been in constant communication in the days before the storm hit, evaluating emergency plans and developing a blueprint on how to best protect human health and the environment.

They established several field collection sites throughout the coastal area, and after the storm passed, nearly 1,300 emergency responders immediately stepped into action. DEQ field staff immediately began rescue efforts. The staff rescued more than 400 people from flooded areas.

The early days after the storm consisted of EPA, DEQ and others assessing damage in areas they could reach or see from the air. By September 1, 2005, the partners had EPA's specialized airplane, called ASPECT, in the air. The plane is capable of taking air samples and high quality photos above the impacted area. In fact, the plane was used to determine that smoke from a September 2, 2005 warehouse fire was not toxic, as many media outlets were reporting.

The HAWK camera, a specialized infrared camera capable of detecting chemical leaks that the human eye cannot see, was also employed.



***OIL SPILLS**

“NEARLY ALL OF THE OIL HAS BEEN REMOVED FROM THE ENVIRONMENT”

The Unified Command **RESPONDED TO NINE OIL SPILLS**, totaling about eight million gallons of oil. Much of the oil has been naturally dispersed, evaporated, or burned off in a process known as in-situ burning. Nearly all of the oil has been removed from the environment. Samples taken in the river channels and near shore waters surrounding the

Mississippi Delta are approved to return to normal recreational activity.

The EPA is providing oversight on the Murphy Oil Spill that occurred in St. Bernard Parish. EPA is collecting split samples of the Murphy samples for quality assurance /quality control purposes. Murphy is sampling inside and outside the homes and providing residential cleanup. EPA has collected more than 900 split samples, which is about 10 percent of the overall samples taken.

Early air samples indicated that the area around the Murphy oil spill contained elevated levels of oil related pollutants. Additional air monitoring since that time shows the area to now meet all air quality standards.



*LAKE PONTCHARTRAIN
& FLOODWATER SAMPLING

"FALSE REPORTS OF TOXIC SOUP IN NEW ORLEANS"

The early days after Katrina were especially stressful for people in the New Orleans area due to **FALSE REPORTS OF "TOXIC SOUP."** The floodwater contained sewage and therefore, exhibited high bacteria counts. However, the bacteria died within a few days and the water was found to be similar to ordinary stormwater run-off for the New Orleans area.

EPA and DEQ addressed environmental concerns with sampling efforts that were unheard of at the time. The numbers are staggering, but the sampling effort was thorough. From September 6, 2005-December 13, 2005, the DEQ lab sampled 2,730 water samples for 41,180 analyses. Add to that the contract labs that had 16,512 analyses of 1,178 samples. Biototoxicity tests were conducted through October 6, 2005 using the water that was being pumped from the city into Lake Pontchartrain. In 100 test results, there was no toxicity in any of the fish that were sampled. Only seven of 100 early results indicated toxicity in invertebrates. Retesting conducted in the three areas where the seven invertebrates demonstrated toxicity showed no further toxicity.

As the floodwaters were pumped back into Lake Pontchartrain, more rumors persisted that this "toxic soup" would kill the lake and harm the seafood. During this time, many state, federal and local agencies were collecting fish tissue samples to see if there was a need for fish-consumption advisories. On December 7, 2005 the states of Alabama, Mississippi and Louisiana, along with federal partners, announced that hundreds of samples of fish and shellfish, collected and analyzed in the aftermath of Hurricanes Katrina and Rita, showed no reason for concern about the consumption of Gulf seafood. The samples were analyzed for chemical and microbiological contaminants that could have been introduced by the hurricanes. The extensive seafood tissue sampling occurred in an area from the estuaries of New Orleans to Gulf Shores, Alabama. The sampled areas included Lake Pontchartrain, Mississippi Sound, Mobile Bay, as well as offshore in the northern Gulf of Mexico.



*SOIL AND
SEDIMENT SAMPLING

"DEQ AND EPA CONDUCTED FOUR PHASES OF SAMPLING."

Both agencies collected and analyzed nearly 2,000 soil and sediment samples in the impacted area to address public concerns. Most of these samples were analyzed for more than 200 metals and organic chemicals. The analyses for approximately 325 samples collected in February 2006 were targeted specifically for either arsenic, lead, benzo(a)pyrene or pesticides.

Arsenic, lead and benzo(a)pyrene were targeted because elevated levels of these contaminants were found at a few locations immediately after the floodwater receded. As each phase of sampling was completed, the results were compared to health-based screening levels for residential exposure developed by EPA and DEQ. Summaries and general assessments of the data were developed by EPA and DEQ with input from the Centers for Disease Control, the Agency for Toxic Substances and Disease Registry, the Louisiana Department of Health and Hospitals and the Federal Emergency Management Agency.

The sample results indicate that, outside of some localized areas and the Murphy oil spill area, the sediments left behind by the flooding are not expected to cause any adverse health impacts. A few localized areas were re-assessed because of the elevated levels of arsenic, lead, benzo(a)pyrene, and petroleum hydrocarbons. The results of these re-assessments indicated that: 1) the highest concentrations of arsenic were associated with herbicides used at or near golf courses; 2) benzo(a)pyrene was found in a small section of the Agriculture Street Landfill Superfund site and will be removed as the Housing Authority of New Orleans demolishes badly damaged townhomes in the area; 3) petroleum hydrocarbons (diesel and oil range organic chemicals) are diminishing over time; 4) pesticides were not detected at unacceptable concentrations in areas adjacent to the Thompson Hayward site; and 5) the elevated levels of lead detected in samples collected by EPA are not the result of the hurricane. The lead results are comparable to the concentrations and distribution of lead found in studies conducted by local university researchers before the hurricanes.



*DEBRIS REMOVAL

“AN UNPRECEDENTED CLEANUP EFFORT”

KATRINA GENERATED MORE THAN 22 MILLION TONS OF CONSTRUCTION & DEMOLITION DEBRIS. There was even more from downed trees, limbs and other vegetative debris throughout the impacted area. State and federal partners have worked to dispose, reuse and recycle much of the debris.

It is important to note that the debris removal and disposal that is still going on is a much different process than disposal after Hurricane Betsy in 1965. In 1965, there were no environmental regulatory agencies such as DEQ and EPA and very few environmental rules and regulations, so all of the waste was dumped into the same landfill, the Agriculture Street Landfill, which would eventually become a Superfund site.

This time, state and federal agencies used lessons from the past. A thorough process has been installed to ensure that hazardous wastes are disposed of properly and that much of what can be recycled is recycled properly.

EPA and DEQ worked together to hand out flyers, send out press releases and conduct media interviews to let citizens know how to separate household hazardous wastes from the regular trash as they were cleaning up their homes. This is the first step of hazardous waste removal. Teams go through trash piles in an attempt to pull out more household hazardous waste. As debris-removal trucks arrive at landfills that are taking hurricane-generated debris, inspectors in the towers look into the truck beds to look for hazardous or inappropriate waste that may have been missed. Finally, spotters on the landfill's working face pull out these wastes to be set aside and disposed of properly.

White goods, such as refrigerators, stoves, air conditioners, etc., are drained of all fluids before they are taken for recycling. This recycling effort will save precious landfill space. Much of the woody waste, from trees and such, has been ground up or chipped and used as landfill cover.

Following search and rescue, the principal concerns were containers of large quantities of extremely hazardous materials at the industrial facilities, derailed and submerged rail tank cars, radioactive sources, major oil spills, and possible release of toxic materials in explosions and fires. From the air, with specialized equipment, the partners were able to identify possible problem areas. While access was a problem, aerial reconnaissance was also the best way to locate oil spills.

EPA's mobile air monitoring lab, known as TAGA, was brought in and air samples were taken in the impacted area. The results indicated that chemical concentrations in most areas were below the Agency for Toxic Substances and Disease Registry health standards. The only area that had high levels of pollutants was the area around the Murphy oil spill.

The environmental partners drew up sampling plans that would ensure that rescue workers and emergency responders were not working in a toxic environment. The sampling included testing sediment after the floodwaters receded.



*DERAILED TANK CARS